

STRAWBERRY PLANT NAMED 'DRISCOLL CORONATION'

1. BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants 'Marathon' (U.S. Plant Patent No. PP12,817) and '38A237' (unpatented variety) in an ongoing breeding program, and was discovered as a seedling in Kent, England in 1999. The original seedling of the new cultivar was asexually propagated by stolons in a Nursery in Kent, England. Propagules were transplanted to a controlled breeding plot in Monterey, California, where the variety was identified and selected for further evaluation. 'Driscoll Coronation' was subsequently asexually propagated and underwent further testing in Monterey, California for one year. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

1.1 LATIN NAME OF THE GENUS AND SPECIES OF THE PLANT CLAIMED

The variety is botanically identified as *Fragaria x ananassa*.

2. SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Driscoll Coronation.' The variety is botanically identified as *Fragaria x ananassa*. The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1-4.

3. COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Driscoll Coronation' from those known to us are 'Driscoll Camarillo' (U.S. Plant Patent No. 10/077,153) and 'Driscoll Jubilee' (U.S. Plant Patent Application filed July 15, 2003). There are several characteristics of the new variety that are different from, or not possessed by 'Driscoll Camarillo' and 'Driscoll Jubilee.' The new variety is distinguished from 'Driscoll Camarillo' and 'Driscoll Jubilee' by having a whitish internal fruit color, a flat habit, a strong leaf glossiness, inflorescence level in relation to the foliage, weak fruit acidity, and medium adherence of fruit to the calyx.

4. BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

Fig. 1 shows the whole the plant.

Fig. 2 shows the upper side of the leaves of the plant

Fig. 3 shows the under side and underside of the flowers.

Fig. 4 shows the fruit in longitudinal cross-section.

Fig. 5 shows a close-up of the fruit.

5. DESCRIPTION OF THE NEW VARIETY

The following detailed description of the new variety is based upon observations taken of plants and fruit grown in Monterey County, California, U.S.A. This description is in accordance with UPOV terminology. Observations of 'Driscoll Coronation,' 'Driscoll Camarillo,' and 'Driscoll Jubilee' were taken in side by side comparison in the year 2002. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. Colors are described and the most similar color designations are provided from the Royal Horticultural Society (RHS) Colour Chart.

5.1 PROPAGATION

The new variety is principally propagated by way of stolons. Although propagation by stolons is presently preferred, other known methods of propagating strawberry plants may be employed.

5.2 CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2, 3 and 4. In the tables, the flowers described are secondary flowers except where indicated. The fruit described is the secondary fruit on one year old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers.

Table 1 provides information on the plant and fruit characteristics of the new variety 'Driscoll Coronation' compared with characteristics of 'Driscoll Camarillo' and 'Driscoll

Jubilee.’ Table 2 provides additional information of the plant and fruit characteristics of the new variety ‘Driscoll Coronation’ compared with characteristics of the varieties ‘Driscoll Camarillo’ and ‘Driscoll Jubilee.’ Table 3 provides reactions of the new variety to stresses, pests and diseases compared with reactions of the varieties ‘Driscoll Camarillo’ and
 5 ‘Driscoll Jubilee.’ Table 4 provides isozyme characteristics of the new variety as compared to that of the varieties ‘Driscoll Camarillo’ and ‘Driscoll Jubilee.’

10 TABLE 1
 QUANTITATIVE COMPARISON OF ‘DRISCOLL CORONATION’,
 ‘DRISCOLL CAMARILLO,’ AND
 ‘DRISCOLL JUBILEE’

	‘Driscoll Coronation’	‘Driscoll Camarillo’	‘Driscoll Jubilee’
<u>Plant Characteristics</u>			
Height of plant (cm)	17.0	20.5	18.3
Spread of plant (cm)	33.2	39.4	30.7
Number of crowns	3.7	3.0	3.5
<u>Leaf Characteristics</u>			
Terminal leaflet length (cm)	7.9	8.4	6.9
Terminal leaflet width (cm)	7.4	8.5	6.7
Terminal leaflet length/width ratio	1.07	0.99	1.04
# Teeth/terminal leaflet	24.3	27.0	20.1
Color of upper side	147A dark green	147A dark green	147A dark green
Color of under side	139C light to medium green	147C light green	138B light to medium green
Petiole length (cm)	16.2	16.8	15.8
Petiole color	145A	145A	145A
Bract frequency	25% typically double	67% typically double	42% typically double
Stipule length (cm)	3.3	4.0	3.1
Stipule width (cm)	0.8	1.0	1.0
<u>Flower Characteristics</u>			
Petal length (cm)	0.96	1.13	1.12
Petal width (cm)	0.93	1.29	1.17
Petal length/width Ratio	1.03	0.88	0.96
Flower diameter (cm)	2.55	3.17	2.92
Calyx diameter (cm)	2.51	3.09	2.65
Fruiting truss length (cm)	24.2	33.2	27.7
Petal color (cm)	155C	155C	155C
<u>Fruit Characteristics</u>			

Fruit length (cm)	3.9	3.8	3.8
Fruit width (cm)	3.9	3.9	3.4
Fruit length/width Ratio	0.99	0.97	1.10
Average berry weight (g)	20.0	20.7	19.8
External color	45B	42A	45A
	red	red	red
Internal color	159D	33A - 155C	43A - 159D
	whitish	orange red and white	red and white
Achene coloration	184A to 8B	184B to 4B	184A to 4A
Yield (g/plant)	850	1200	600

TABLE 2

QUALITATIVE COMPARISON OF 'DRISCOLL CORONATION',
'DRISCOLL CAMARILLO,' AND
'DRISCOLL JUBILEE'

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<u>Plant</u>	'Driscoll Coronation'	'Driscoll Camarillo'	'Driscoll Jubilee'
Habit	flat	flat globose	flat globose
Density	open	open	open to medium
Vigor	weak to medium	medium to strong	weak to medium
<u>Leaf</u>			
Shape in cross section	slightly concave to flat	concave	slightly concave to flat
Interveinal blistering	medium	strong	strong
Glossiness	strong	medium to strong	medium
Number of leaflets	three only	three only	three only
Terminal leaflet margin profile	revolute	revolute	revolute
Terminal leaflet shape of base	obtuse	rounded	acute
Terminal leaflet shape of teeth	obtuse	rounded	Rounded
Stipule pubescence	sparse	medium	sparse to medium
Petiole pubescence	very sparse to sparse	sparse	very sparse
Petiole pose of hairs	outwards	upwards to outward	outwards to downwards
<u>Stolon</u>			
Amount	few to medium	medium	Medium
Anthocyanin coloration	medium	medium	Medium
Thickness	medium	thick	thin to medium
Pubescence	medium	medium	sparse to medium

Inflorescence

Position relative to foliage	level	above	beneath
Diameter of calyx relative to corolla on secondary flowers	smaller to same size	smaller to same size	smaller to same size
Diameter of inner calyx relative to outer on secondary flowers	smaller	same size	smaller
Spacing of petals	touching	overlapping	touching to overlapping

Fruiting Truss

Attitude at first picking	prostrate	semi-erect to prostrate	semi-erect
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Fruit

Predominant shape	chordate	chordate	conical
Difference in shapes between primary and secondary fruits	slight to moderate	slight to moderate	very slight to slight
Band without achenes	very narrow	very narrow	very narrow
Unevenness of surface	very weak to weak	weak to medium	very weak
Evenness of color uneven	slightly uneven to even	Even	slightly uneven
Glossiness	strong	Strong	strong
Insertion of achenes	level	below to level	level to above
Insertion of calyx	in a basin	in a basin	in a basin to level
Pose of the calyx segments	spreading	spreading to reflexed	spreading
Size of calyx in relation to fruit on secondary fruit	same size to larger	Smaller	smaller to same size
Adherence of calyx	medium	strong	strong
Firmness of flesh	medium	firm	medium to firm
Evenness of flesh color	even	slightly uneven	slightly uneven
Distribution of flesh color	central	marginal and central	marginal and central
Hollow center size	small to medium	absent to small	absent to small
Sweetness	strong	medium	medium to strong
Texture when tasted	fine	medium	medium
Acidity	weak	Medium	medium
Time of Flowering	medium	medium	medium
Type of Bearing	fully everbearing	fully everbearing	fully everbearing

5.3 REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

REACTIONS TO STRESS PESTS AND DISEASES FOR 'DRISCOLL CORONATION',
'DRISCOLL CAMARILLO,' AND 'DRISCOLL JUBILEE'

	'Driscoll Coronation'	'Driscoll Camarillo'	'Driscoll Jubilee'
<u>Reaction to Stress</u>			
high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately susceptible	moderately resistant	moderately susceptible
<u>Reaction to Pests</u>			
Tetranychus urticae	moderately susceptible	moderately susceptible	moderately susceptible
Lygus hesperus	susceptible	susceptible	susceptible
<u>Reaction To Diseases</u>			
Botrytis fruit rot	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant
Powdery mildew	moderately susceptible	susceptible to highly susceptible	susceptible
Verticillium wilt	moderately susceptible	moderately susceptible	moderately resistant

5.4 ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Driscoll Coronation' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Driscoll Coronation', 'Driscoll Camarillo' and 'Driscoll Jubilee' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucisomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucumutase ("PGM"). See J. Amer. Soc. Hort. Sci. 106:684-687. Isozyme characterization of the three varieties is presented in Table 4, with the letters representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4

ISOZYME ANALYSIS FOR 'DRISCOLL CORONATION', 'DRISCOLL CAMARILLO,'
AND 'DRISCOLL JUBILEE'

Locus	'Driscoll Camarillo'	'Driscoll Coronation'	'Driscoll Jubilee'
PGI	A2	A3	A1
LAP	B3	B3	B3
PGM	C4	C4	C4

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